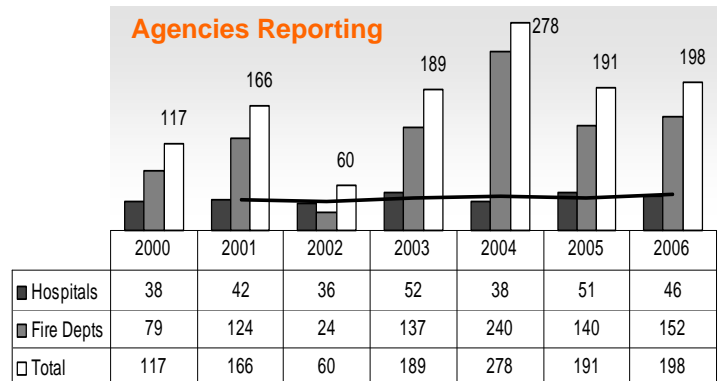
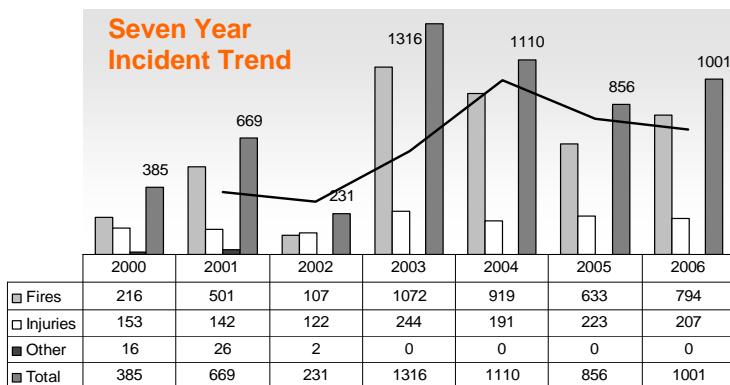


*Mission: To implement a comprehensive and effective educational and enforcement program for fireworks injury prevention and fire safety.*

There were 1001 fireworks-related injuries and/or fires reported to the State Fire Marshal in 2006 by fire departments and hospital emergency rooms. This is a 17% increase from the previous year total of 856 but a 26% increase over the seven-year average of 795. Of the 1001 reports received, there were 794 fires and 207 injuries. These incidents resulted in \$9 million in property loss. This data was collected on paper reports from individual fire departments and hospitals and is partially from the National Fire Incident Reporting System (NFIRS) data base. Fireworks-related incidents most often occur on July 4. This has remained constant over the past seven years.



## Schools Succumb to High Fire Losses

In 2006, three school fires reported over \$8 million in property and contents loss.

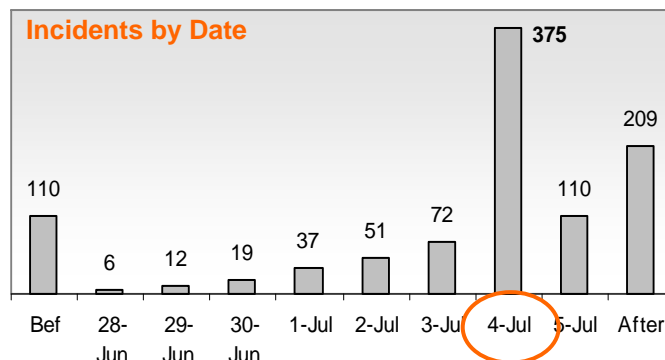
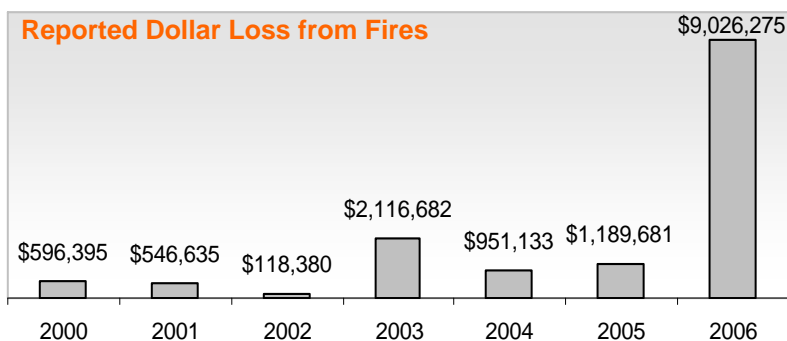
In Centralia, the Oakview Elementary School was damaged by a firework that was thrown into a trash container by two 14-year-old boys.

In SeaTac, Boulevard Park Elementary School was destroyed by fireworks (possibly a bottle rocket) that started a vegetation fire which spread to the school. The school was closed and being used for storage.

In Spokane Valley, the Ponderosa Elementary School received fire damage to its roof when kids were lighting fireworks on school property. Bottle rockets and packaging were found on the school grounds and on the roof.



Oakview Elementary School  
Photo provided by Centralia Fire Department

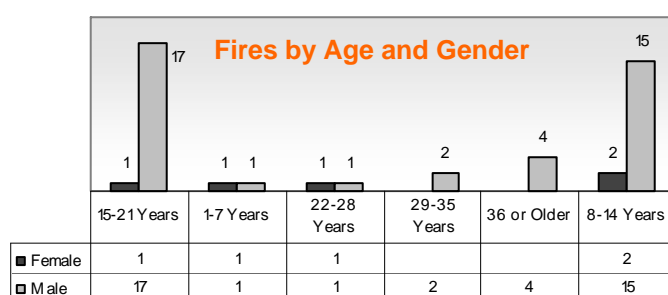
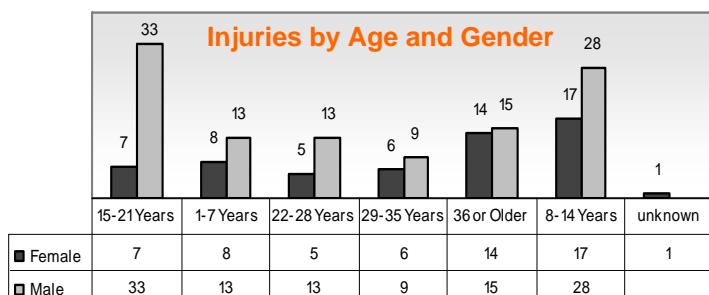


In 2006 fireworks-related fires caused an estimated loss of \$9,026,275. Based on the reports received, illegal fireworks were identified as the cause in 17% of all reported fireworks-related fires and caused \$5,912,175 in property loss, or 65% of the estimated total loss from fireworks-related fires. Legal fireworks were identified in 11% of the reported fires, with a loss of \$3,081,550, or 34% of the total loss. The type of fireworks was not identified by the reporting fire department in 72% of the fire incidents (Table #1).

<b>Table #1</b>								
<b>Fires by Classification of Fireworks Device</b>								
<b>Property Type</b>	<b>Dollar Loss</b>				<b>Number of Fires</b>			
	<b>Illegal</b>	<b>Legal</b>	<b>Unidentified</b>	<b>Total</b>	<b>Illegal</b>	<b>Legal</b>	<b>Unknown</b>	<b>Total</b>
Wildland/Vegetation	\$ 2,525	\$ 9,300	\$ 2,850	\$ 14,675	96	60	391	547
Residential	\$ 857,100	\$ 17,500	\$ 25,200	\$ 899,800	19	9	76	104
Commercial	\$ 1,000	\$ 50,000	\$ 4,500	\$ 55,500	3	4	10	17
School	\$ 5,051,350	\$3,001,000	\$ -	\$ 8,052,350	6	5	6	17
Vehicle	\$ -	\$ 3,750	\$ -	\$ 3,750	6	3	33	42
Unknown/Other	\$ 200	\$ -	\$ -	\$ 200	8	4	55	86
<b>Total</b>	<b>\$ 5,912,175</b>	<b>\$3,081,550</b>	<b>\$ 32,550</b>	<b>\$ 9,026,275</b>	<b>138</b>	<b>85</b>	<b>571</b>	<b>794</b>

Of great concern is the loss to schools at \$8,052,350. Most of the loss was from just three school fires. Schools were the smallest percent of the fire incidents, at just 2 percent but had the largest amount of property loss. Whereas, wildland/vegetation fires accounted for 68% of the total fires but had a loss of \$14,675. Residential fires accounted for 13% with a fire loss of \$899,800 and 5% were vehicle fires with a fire loss of \$3,750 (Table #1).

Fireworks-related fires by age and gender (see chart below) clearly shows that male juveniles are causing most (65%) of the fireworks-related fires. Fireworks-related injuries by age and gender show that male youth and young adults are most often injured in fireworks-related injury incidents. There was no adult supervision in 24% of the incidents where supervision was known and children were involved. According to the Center for Disease Control, children are 11 times more likely to be injured by fireworks if they are unsupervised.<sup>1</sup>



The type of injury caused most often was burns at 51%. The next leading injury was trauma at 30%, followed by amputations at less than 1% (Table #2).

Table #2 Injuries by Legal Classification of Fireworks									
Type of Injury					Injury Location				
Type of Injury	Illegal	Legal	Unknown	Total	Place Injured	Illegal	Legal	Unknown	Total
Amputation	3	0	0	3	Arm	4	3	2	9
First Degree Burn	17	12	14	43	Hand	23	19	15	57
Second Degree Burn	23	19	10	52	Head or Face	43	19	20	82
Third Degree Burn	2	4	4	10	Leg or Foot	10	2	6	18
Trauma	41	8	13	62	Multiple	4	0	1	5
Unknown/Other	9	5	23	37	Torso	8	1	3	12
Total	95	48	64	207	Unknown	2	4	18	24
					Total	94	48	65	207

Table #3 shows the types of fireworks devices that were involved in injury incidents. Illegal fireworks were involved in 101 injury incidents, or 49%, and legal fireworks were responsible for 46 incidents, or 22%.

Of the 46 incidents involving legal devices, sparklers caused 13, or 28%, of the incidents, followed by multi aerals with 8, or 17%, and third are roman candles at 7, or 15%, of the incidents. The remaining miscellaneous fireworks caused 18, or 39%, of the incidents. Illegal devices causing injuries include **bottle rockets at 27**, or 27%, and firecrackers at 17, or 17%

As shown in Table #4, the leading cause of fireworks-related injuries is “Holding” at 40 incidents, followed by “Delayed Ignition” at 14 incidents, and “Leaning” at 13 incidents.

Table #3 Injuries by Type of Device				
Type of Device	Illegal	Legal	Unknown	Total
Altered Fireworks	5			5
Bottle Rockets	27			27
Cones and Fountains	0	3		3
Firecrackers and Chasers	17			17
Ground Spinners	0	4		4
Helicopters	0	1		1
Homemade Explosive Devices	15			15
M-100's or Larger	1			1
M-80's	4			4
Missiles and Rockets	14			14
Multi-Aerials	2	8		10
Novelties	0	2		2
Public Display Mortars	15			15
Roman Candles	1	7		8
Smoke Items	0	6		6
Sparklers	0	13		13
Unknown	0	2	60	62
Grand Total	101	46	60	207

Table #4 Cause of Injury	
Cause	
Delayed Ignition	14
Holding Fireworks	40
Leaning Over	13
Tampering	10
Throwing Fireworks	16
Unsafe Surface	8
Other/Unknown	106
Grand Total	207

The 15 homemade explosive devices include 11 sparkler bomb incidents. Making or possessing an improvised explosive device or any fireworks devise that has been altered holds serious consequences.

A great way to enjoy fireworks is to attend a public display produced by trained professionals. Their shows are spectacular and safe. There are over 100 professional displays on July 4 in Washington State, and many other Independence Day activities.

Fires and injuries caused by fireworks are reported by local fire agencies and hospitals on paper forms or through the National Fire Incident Reporting System. The chart below provides a summary of the reports received in 2006 by county and agency type.

County	Fire Department		Total	Fire District			Hospital		Grand Total
	Fire	Injury		Fire	Injury	Total	Injury	Total	
Adams							1	1	1
Asotin							1	1	1
Benton	4		4	2		2	2	2	8
Chelan	2		2	2		2	1	1	5
Clallam	12		12	5		5	1	1	18
Clark	20		20	11		11	3	3	34
Cowlitz	3		3	9	2	11			14
Douglas				1		1			1
Franklin	3		3	1	1	2	2	2	7
Grant	10		10	7		7	2	2	19
Grays Harbor	14	4	18	2		2	5	5	25
Island	4		4	4	1	5	4	4	13
Jefferson							1	1	1
King	178	5	183	66	3	69	49	49	301
Kitsap	13		13	24	4	28	6	6	47
Kittitas	1		1	4		4	2	2	7
Klickitat				2		2			2
Lewis	3		3		1	1	4	4	8
Lincoln				2		2			2
Mason				4		4	8	8	12
Okanogan	3	1	4						4
Pacific	1		1	4		4			5
Pierce	72	3	75	35	6	41	22	22	138
San Juan				3		3			3
Skagit	5		5	7		7	4	4	16
Skamania				1		1			1
Snohomish	33	5	38	73	5	78	12	12	128
Spokane	14	4	18	13	1	14	2	2	34
Stevens				5		5			5
Thurston	6		6	10	2	12	1	1	19
Walla Walla	8		8	4		4	3	3	15
Whatcom	12	1	13	7		7	10	10	30
Whitman	10		10				2	2	12
Yakima	23	1	24	32	4	36	5	5	65
Grand Total	454	24	478	340	30	370	153	153	1001

For more information about fireworks safety, public fireworks displays and the fireworks laws for your area, check the Celebrate Safely website at <http://www.wsp.wa.gov/fireworks/default.htm>

<sup>1</sup> Center for Disease Control, National Center for Injury Prevention and Control, Fireworks-Related Injuries, April 4, 2006, <http://www.cdc.gov/ncipc/factsheets/fworks.htm>.